



## DRILL STEM TEST REPORT

Prepared For: **GRAND MESA OPERATING**

1700 N WATERFRONT  
PKWY BLDG 600  
WICHITA KS 67206

ATTN: STEVE CARL

**22-13S-32W- LOGAN**

**VAILE 1-22**

Start Date: 2010.12.06 @ 00:00:00

End Date: 2010.12.06 @ 07:37:30

Job Ticket #: 1056                      DST #: 1

Eagle Testers LLC.

P.O.Box 1011, Great Bend, KS 67530

620-617-7548

Printed: 2010.12.06 @ 00:56:36

GRAND MESA OPERATING  
VAILE 1-22  
22-13S-32W- LOGAN  
DST # 1  
TORONTO  
2010.12.06



# DRILL STEM TEST REPORT

GRAND MESA OPERATING

VAILE 1-22

1700 N WATERFRONT  
PKWY BLDG 600  
WICHITA KS 67206  
ATTN: STEVE CARL

22-13S-32W- LOGAN

Job Ticket: 1056      **DST#: 1**  
Test Start: 2010.12.06 @ 00:00:00

## GENERAL INFORMATION:

Formation: **TORONTO**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:02:00

Time Test Ended: 07:37:30

Test Type: Conventional Bottom Hole (Initial)

Tester: DAVID NICHOLS

Unit No: 15 62 MRT SCOTT CIT

Interval: **3937.00 ft (KB) To 4030.00 ft (KB) (TVD)**

Reference Elevations: 3039.00 ft (KB)

Total Depth: 4030.00 ft (KB) (TVD)

3033.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 6.00 ft

**Serial #: 6651**

**Inside**

Press @ RunDepth: 381.50 psig @ 4026.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2010.12.06 End Date: 2010.12.06

Last Calib.: 2010.12.06

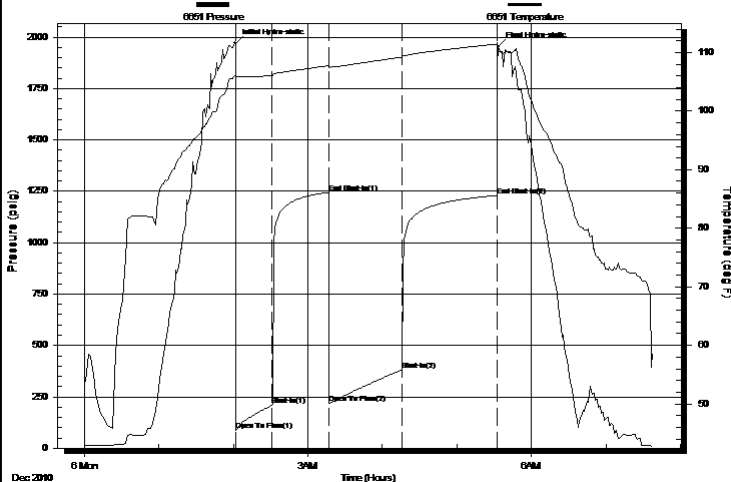
Start Time: 00:00:00 End Time: 07:37:30

Time On Btm: 2010.12.06 @ 02:01:30

Time Off Btm: 2010.12.06 @ 05:33:30

**TEST COMMENT:** 30-INITIAL OPENING FAIR BLOW BOTTOM BUCKET IN 13 MINS  
45-INITIAL SHUT IN NO BLOW BACK  
60-FINAL OPENING FAIR BLOW BOTTOM BUCKET IN 14 MINS  
75-FINAL SHUT IN NO BLOW BACK

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1970.57	106.21	Initial Hydro-static
1	86.49	105.79	Open To Flow (1)
30	209.11	106.11	Shut-In(1)
75	1244.20	107.76	End Shut-In(1)
76	217.38	107.49	Open To Flow (2)
135	381.50	109.24	Shut-In(2)
211	1228.92	111.45	End Shut-In(2)
212	1951.88	110.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
660.00	MUDDY WATER 15%M 85%WATER	8.49

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)





# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

GRAND MESA OPERATING

**VAILE 1-22**

1700 N WATERFRONT  
 PKWY BLDG 600  
 WICHITA KS 67206  
 ATTN: STEVE CARL

**22-13S-32W- LOGAN**

Job Ticket: 1056 **DST#: 1**  
 Test Start: 2010.12.06 @ 00:00:00

## Tool Information

Drill Pipe:	Length: 3794.00 ft	Diameter: 3.88 inches	Volume: 55.48 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 56.07 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	0.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3937.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	93.00 ft				
Tool Length:	116.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
SHUT IN TOOL	5.00			3919.00	
HYD S.I. Tool	5.00			3924.00	
jars	6.00			3930.00	
safty joint	2.00			3932.00	
TRAVEL COLER	2.00			3934.00	
Packer	3.00			3937.00	23.00 Bottom Of Top Packer
travel collar	1.00			3938.00	93.00 Tool Interval
Packer	1.00			3939.00	
change over sub	0.75			3939.75	
drill pipe	62.50			4002.25	
change over sub	0.75			4003.00	
Perforations	22.00			4025.00	
Recorder	1.00	6651	Inside	4026.00	
Recorder	1.00	8525	Outside	4027.00	
bull plug	3.00			4030.00	1000115.00 Bottom Packers & Anchor

**Total Tool Length: 116.00**



# DRILL STEM TEST REPORT

## FLUID SUMMARY

GRAND MESA OPERATING

VAILE 1-22

1700 N WATERFRONT  
PKWY BLDG 600  
WICHITA KS 67206  
ATTN: STEVE CARL

22-13S-32W- LOGAN

Job Ticket: 1056

DST#: 1

Test Start: 2010.12.06 @ 00:00:00

### Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 10.00 in<sup>3</sup>

Resistivity: ohm.m

Salinity: 2000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: deg API

ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
660.00	MUDDY WATER 15%M 85%WATER	8.487

Total Length: 660.00 ft      Total Volume: 8.487 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

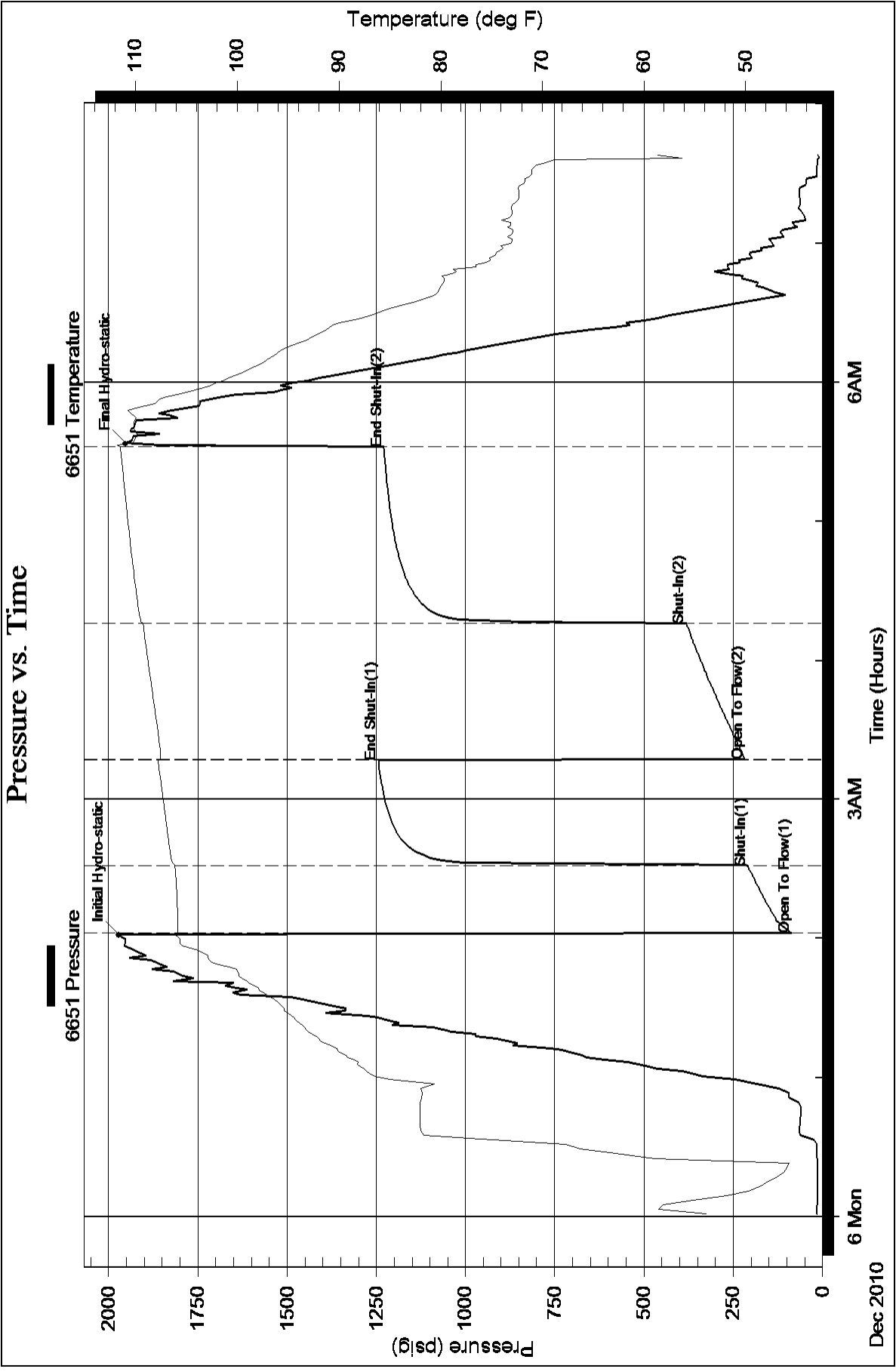
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RECOVERY CHOLRIDES 41,000

### Pressure vs. Time



Serial #: 8525

Outside GRAND MESA OPERATING

22-13S-32W- LOGAN

DST Test Number: 1

